

REMOTE SENSING OF ENVIRONMENT

An Interdisciplinary Journal

Volume 23, Number 1, October 1987

Contents

- DOUGLAS A. STOW (San Diego, CA)
Numerical Derivation of a Hydrodynamic Surface Flow Field from Time
Sequential Remotely Sensed Data 1
- MATHEW R. SCHWALLER (Greenbelt, MD)
A Geobotanical Investigation Based on Linear Discriminant and Profile
Analyses of Airborne Thematic Mapper Simulator Data 23
- A. K. FUNG AND M. F. CHEN (Arlington, TX) AND K. K. LEE (Singapore)
Fresnel Field Interaction Applied to Scattering from a Vegetation Layer 35
- T. TAKASHIMA AND K. MASUDA (Ibaraki, Japan)
Emissivities of Quartz and Sahara Dust Powders in the Infrared
Region (7–17 μm) 51
- JERRY C. RITCHIE (Beltsville, MD), CHARLES M. COOPER (Oxford, MS), AND
JIANG YONGQING (Wugong, China)
Using Landsat Multispectral Scanner Data to Estimate Suspended Sediments
in Moon Lake, Mississippi 65
- JOHAN KLEMAN (Stockholm, Sweden)
Directional Reflectance Factor Distributions for Two Forest Canopies 83
- JERZY CIERNIEWSKI (Poznan, Poland)
A Model for Soil Surface Roughness Influence on the Spectral Response of
Bare Soils in the Visible and Near-Infrared Range 97
- YASUSHI YAMAGUCHI (Ibaraki, Japan)
Possible Techniques for Lithologic Discrimination Using the
Short-Wavelength-Infrared Bands of the Japanese ERS-1 117
- DARREL L. WILLIAMS AND FRANK M. WOOD, JR. (Greenbelt, MD)
A Transportable Hemispherical Illumination System for Making Reflectance
Factor Measurements 131

REMOTE SENSING OF ENVIRONMENT

An Interdisciplinary Journal

Volume 23, Number 2, November 1987

Contents

Foreword	141
PAUL T. TUELLER (Reno, NV) Remote Sensing Science Applications in Arid Environments	143
MELVIN B. SATTERWHITE AND J. PONDER HENLEY (Ft. Belvoir, VA) Spectral Characteristics of Selected Soils and Vegetation in Northern Nevada and Their Discrimination Using Band Ratio Techniques	155
RICHARD O. WILSON (Anaheim, CA) AND PAUL T. TUELLER (Reno, NV) Aerial and Ground Spectral Characteristics of Rangeland Plant Communities in Nevada	177
ELIZABETH M. MIDDLETON AND DONALD W. DEERING (Greenbelt, MD) AND SURAIYA P. AHMAD (Lanham, MD) Surface Anisotropy and Hemispheric Reflectance for a Semiarid Ecosystem	193
A. R. HUETE (Tucson, AZ) AND R. D. JACKSON (Phoenix, AZ) Suitability of Spectral Indices for Evaluating Vegetation Characteristics on Arid Rangelands	213
B. J. CHOUDHURY AND C. J. TUCKER (Greenbelt, MD) Satellite Observed Seasonal and Inter-Annual Variation of Vegetation Over the Kalahari, The Great Victoria Desert, and The Great Sandy Desert: 1979-1984	233
COMPTON J. TUCKER AND BHASKER J. CHOUDHURY (Greenbelt, MD) Satellite Remote Sensing of Drought Conditions	243
G. W. PETERSEN, K. F. CONNORS, D. A. MILLER, R. L. DAY, AND T. W. GARDNER (University Park, PA) Aircraft and Satellite Remote Sensing of Desert Soils and Landscapes	253
RANDALL W. THOMAS (Berkeley, CA) AND SUSAN L. USTIN (Davis, CA) Discriminating Semiarid Vegetation Using Airborne Imaging Spectrometer Data: A Preliminary Assessment	273

REMOTE SENSING OF ENVIRONMENT

An Interdisciplinary Journal

Volume 23, Number 3, December 1987

Contents

D. H. HOEKMAN (Wageningen, Netherlands) Measurements of the Backscatter and Attenuation Properties of Forest Stands at X-, C- and L-Band	397
ROBERT A. ARNONE (NSTL, MS) Satellite-Derived Color-Temperature Relationship in the Alboran Sea	417
K. P. GALLO (Washington, D.C.) AND C. S. T. DAUGHTRY (Beltsville, MD) Differences in Vegetation Indices for Simulated Landsat-5 MSS and TM, NOAA-9 AVHRR, and SPOT-1 Sensor Systems	439
PETER CAMILLO (Greenbelt, MD) A Canopy Reflectance Model Based on an Analytical Solution to the Multiple Scattering Equation	453
EUGENIO ZILIOLI AND MASSIMO ANTONINETTI (Milan, Italy) Geostructural Evolution of the Southern Alps: Lineaments Trends Detected on Landsat Images	479
AUTHOR INDEX TO VOLUME 23	493
SUBJECT INDEX TO VOLUME 23	495
VOLUME CONTENTS	